In The Claims

Please make the following amendments to the claims:

1.   (Currently Amended) An automatic document generation system in an e-business environment, comprising:

a document generation rule formulator that a user employs to designate document generation rules through a graphic user interface;

a document component library for storing and managing document component summary information and document components that represent specific concepts;

a document component library for storing and managing document component summary information and document components that represent specific concepts;

a document generation rule processor for accumulating document components needed for document assembly received from the document component library, and generating grammar neutral document objects, the document generation rule processor performing these operations on the basis of document generation rules; and

a document grammar connector for converting the grammar neutral document objects, which are suitable for semantic program processing in a computer system, into grammar-connected documents that are in a human-readable string form for use in an actual business.

2.   (Original) The system of claim 1, wherein the document generation rule formulator comprises:

a component selector for displaying usable component items that are provided by a corresponding library based on document component summary

information searched in the document component library, the document component summary information including at least a component ID, a component name, and a component type, and optionally including various different types of information that represent other components;

a document component assembler for forming an area where component structures are modeled based on user input through a graphic user interface, the user dragging the needed document components appearing in the component selector and dropping the documents at a suitable location in the document component assembler to thereby generate document structures, in which such structures are formulated as assembly rules, and the assembly rules include IDs of all document components and structural information between each component; and

a context condition compiler for forming an area where context conditions realized through pairs of conditions and actions are compiled to enable insertion into document structures, the context condition compiler enabling the formation of context rules, which allow the processing of actions, in the document generation rule processor in the case where conditions are satisfied for a specific business context during document assembly.

3.   (Original) The system of claim 2, wherein the assembly rules and the context rules are output as a single document generation rule.

4.   (Original) The system of claim 1, wherein the document component library comprises:

the document component summary information for recording various document components that constitute business documents and detailed information on all components included in a present library; and

a component library interface for connection to external modules,

wherein the document generation rule formulator searches the document component summary information through the component library interface, and the document generation rule processor uses document component IDs, which are numbers specific to each component, to accumulate document components required for document assembly.

5.   (Original) The system of claim 4, wherein the document components stored in the document component library include simple components of a single type and complex components realized through a structure of a plurality of simple components.

6.   (Original) The system of claim 1, wherein the document generation rule processor comprises:

a component assembler for reading assembly rules in the document generation rules, and using document component IDs to accumulate from the document component library the document components required in the assembly rules, then assembling the document components using structural information between components, after which the resulting assembled components are output; and

a context processor for reading context rules in the document generation rules, and, if a specific business context satisfies the conditions of the context rules, applying designated actions to the assembled components to thereby ultimately generate the grammar neutral document objects.

7.   (Original) The system of claim 1, wherein the document grammar connector comprises:

a grammar converter supporting grammar for supporting specific business systems, and converting the grammar neutral document objects into grammar-connected document objects; and

a document output unit for realizing and storing grammar-connected documents, which are used in an actual business and are in the form of a string recognizable by a user.

8.   (Currently Amended) An automatic document generation method in an e-business environment, comprising:

(a)   storing document component summary information and document components that represent specific concepts;

(b)   designating document generation rules through a graphic user interface;

(c)   accumulating document components needed for document assembly and from a document component library, and generating grammar neutral document objects based on the document generation rules; and

(d)   converting the grammar neutral document objects, which are suitable for <u>semantic</u> processing in a program of a computer system, into grammar-connected documents in a <u>human-readable</u> string form used in an actual business.

9.   (Original) The method of claim 8, wherein (b) comprises:

displaying a list of usable components provided by a corresponding library based on the document component summary information searched in the document component library;

dragging required documents appearing in a component selector and dropping the documents at a suitable location in a document component assembler, which forms an area where component structures are modeled based

on user input through a graphic user interface, to thereby generate document structures; and

compiling context conditions realized through pairs of conditions and actions, and allowing insertion of the context conditions into document structures.

10.   (Original) The method of claim 8, wherein (c) comprises:

reading assembly rules in the document generation rules, accumulating from the document component library the document components required in the assembly rules using document component IDs, assembling the document components using structural information between components, and outputting the resulting assembled components; and

reading context rules in the document generation rules, and if a specific business context satisfies the conditions of the context rules, applying designated actions to the assembled components to thereby ultimately generate the grammar neutral document objects.

11.   (Original) The method of claim 8, wherein (d) comprises:

supporting grammar for specific business systems and converting the grammar neutral document objects into grammar-connected document objects; and

realizing and storing grammar-connected documents, which are used in an actual business and are in the form of a string recognizable by a user.

12.   (Currently Amended) A computer-readable recording ~~Recording~~ media storing instructions to cause a programmable processor to perform an e-business document generation method, comprising:

storing document component summary information and document components that represent specific concepts;

designating document generation rules through a graphic user interface;

accumulating document components needed for document assembly from a document component library, and generating neutral document objects based on the document generation rules; and

converting the grammar neutral document objects, which are suitable for semantic processing in a program of a computer system, into grammar-connected documents in a human-readable string form used in an actual business.